

N60200.AR.008734
NAS CECIL FIELD
5090.3a

LETTER REGARDING EMERGENCY DETONATION PERMIT REQUEST FOR THERMAL
TREATMENT OF HAZARDOUS WASTE NAS CECIL FIELD FL
3/9/2012
NAVFAC SOUTHEAST



DEPARTMENT OF THE NAVY
BASE REALIGNMENT AND CLOSURE
PROGRAM MANAGEMENT OFFICE SOUTHEAST
4130 FABER PLACE DRIVE
SUITE 202
NORTH CHARLESTON, SC 29405

Ser BPMOSE afs/0037
09 Mar 12

Florida Department of Environmental Protection
Attn: Mr. Anthony R. Tripp, Ph.D., P.E.
2600 Blairstone Road, Twin Towers
Mail Stop 4560
Tallahassee, Florida 32399

Subj: EMERGENCY DETONATION PERMIT REQUEST, FORMER NAVAL AIR STATION
CECIL FIELD, RCRA CORRECTIVE ACTION PERMIT NUMBER 13526-HH-004,
JACKSONVILLE, FLORIDA

Dear Mr. Tripp:

Request by Base Realignment and Closure Program Management Office Southeast (BRAC PMO SE) for an emergency permit from the Florida Department of Environmental Protection (FDEP) to allow the thermal treatment/destruction of hazardous waste. The treatment will be carried out by the Naval Ordnance Safety and Security Activity (NOSSA), BRAC PMO SE, and the BRAC PMO SE Munitions Response/Explosive Ordnance Disposal (EOD) Contractor (AGVIQ-CH2M HILL Constructors, Inc. [AGVIQ-CH2M HILL] with USA Environmental, Inc. [USAE]) at the Hanger 860 Munitions Response Area (MRA) located at the former Naval Air Station Cecil Field, Jacksonville, Florida. The treatment involves deactivation or destruction of a reactive waste, (i.e., recovered munitions and explosives of concern [MEC] that present an unacceptable hazard for transportation to a disposal site). This permit is for the detonation of MEC found during the munitions response completed at the Building 365 and Hanger 860 MRAs from November 7, 2011 to December 15, 2011.

FINDINGS OF FACT

1. The specific waste to be thermally treated/destroyed by detonation is the following:

- Approximately (5) each 20-MM Cartridge Case (live primer only) consisting of an electrical primer only (projectile and propellant are missing) (approx. NEW 0.0031 lbs) contained in a steel or brass cartridge case without a projectile.
- Approximately (8) each U.S. Projectile, 20-MM, TP, M99 consisting of a percussion primer and propellant (approx. NEW 0.08 lbs) contained in a steel or brass cartridge case with an inert target practice projectile.
- Approximately (2) each U.S. Projectile, 20-MM, M95 consisting of an electric primer and propellant (approx. NEW 0.007 lbs) contained in a steel or brass cartridge case with an inert target practice projectile.
- Approximately (1) each MK 23 Practice Bomb containing MK 4 Signal Cartridge consisting of a percussion primer which initiates red phosphorous smoke charge (approx. NEW 0.19 lbs) contained in a metal cartridge.
- Approximately (5) each MK 23 Practice Bomb primers containing MK 4 Signal Cartridge consisting of a percussion primer which initiates red phosphorous smoke charge (approx. NEW 0.19 lbs) contained in a metal cartridge.
- Approximately (2) each CCU-41/B, Cartridge Impulse consisting of an electric primer and propellant (approx. NEW 0.0101 lbs) contained in a metal cartridge.

- Approximately (1) each CCU-44/B, Cartridge Impulse consisting of an electric primer and propellant (approx. NEW 0.0101 lbs) contained in a metal cartridge.
- Approximately (1) each CCU-45/B, Cartridge Impulse consisting of an electric primer and propellant (approx. NEW 0.0101 lbs) contained in a metal cartridge.
- Approximately (1,024) each U.S. Projectile, 20-MM, HEI, M56, consisting of an electric primer and propellant (approx. NEW 0.12 lbs) contained in a steel or brass cartridge case with an inert target practice projectile.
- Approximately (2) each MK2, Cartridge Impulse consisting of an electric primer and propellant (approx. NEW 0.02 lbs) contained in a metal cartridge.
- Approximately (2) each Signal, Illumination AN-M40A2 consisting of a percussion primer, propellant, and illuminant (approx. NEW 0.14375 lbs) contained in a metal cartridge.
- Approximately (52) each Small Arms consisting of percussion primers and smokeless powder (approx. NEW 0.0343 lbs) contained in a metal cartridge.
- Approximately (2) each 2.25-inch Sub-caliber Aircraft rockets consisting of a primer and propellant (approx. NEW 0.02 lbs) contained in a metal cartridge.
- Approximately (2) each rocket motor from a 2.36-inch M7A1 anti-tank rocket launcher consisting of percussion primers and propellant (approx. NEW 0.02 lbs) contained in a metal cartridge.
- Approximately (1) each Signal, Ground Illumination M22 consisting of a percussion primer, propellant, and illuminant (approx. NEW 0.14375 lbs) contained in a metal cartridge.
- Approximately (3) each pyrotechnical rifle grenade (live primer only) consisting of an electrical primer only (projectile and propellant are missing) (approx. NEW 0.0031 lbs) contained in a steel or brass cartridge case without a projectile.
- Approximately (3) items of unknown energetic material, suspected propellant from pyrotechnical rifle grenades consisting of a propellant only (approx. NEW 0.02 lbs).

AGVIQ-CH2M HILL and USAE have determined the above waste to be unsafe to transport for disposal. Because of the flammable, shock-sensitive, reactive, and explosive nature of this hazardous waste, there is a potential danger to the health and welfare of those persons coming in contact with this waste if the waste is not handled in the proper manner. Based on the above, the hazardous waste presents an imminent hazard to persons and property in its proximity.

2. NOSSA, BRAC PMO SE, AGVIQ-CH2M HILL, and USAE will abate the imminent hazard identified in Findings of Fact #1 by thermal destruction of the unstable, flammable, shock-sensitive, and potentially explosive hazardous waste.
3. Only the waste specified in Findings of Fact #1 will be thermally treated to deactivate or destroy the hazardous nature of the waste. The treatment operation will be accomplished in accordance with this request; "Work Plan, Munitions Response for Discarded Military Munitions at Building 365 and Hanger 860 Munitions Response Areas," Revision No. 00 dated March 2010, Revision No. 01 dated March 2011, and Revision No. 02 dated October 2011; and the project Explosives Safety Submission, Amendment No. 02, Correction No. 02, dated February 2012.

4. All other local, state, and federal approvals and licenses will be obtained prior to conducting thermal treatment activities.
5. The hazardous waste will be treated/destroyed via detonation in a field (latitude: 30°13'12.52"North; longitude: 81°53'43.00"West) within the Hanger 860 MRA located at the former Naval Air Station Cecil Field, Jacksonville, Florida. The treatment site is owned by:

Jacksonville Airport Authority – Cecil Field
ATTN: Mr. Rusty Chandler, Airport Manager
13365 Aeronautical Circle
Jacksonville, FL 32221

The closest permanent residences are in the Cecil Pines Housing Area that is located approximately 4,403 feet from the treatment site.

6. The following general procedures will be used to thermally treat and destroy the items listed in Findings of Fact #1:

The general procedure will be to use 0.43 lbs. of RDX linear shape charge as donor explosives to thermally treat and destroy the items. The linear shape charge and items will be segregated into treatment/detonation events not to exceed 2.62 lbs. Net Explosives Weight. All treatment/detonation events will be done with protective works/engineering controls by surrounding with an enclosure which has 24 inches of sand bags on the roof and walls.

7. The hazardous waste will be thermally treated under the supervision and control of NOSSA, BRAC PMO SE, AGVIQ-CH2M HILL, and USAE. These officials are experienced in the handling and disposal of explosives.
8. Any visible residue or debris resulting from the treatment process will be removed and properly disposed of offsite by approved methods. Post-treatment soil sampling will be completed to ensure no contamination remains following residue/debris removal. The number of soil samples will be determined based on the number of treatment sites. Laboratory analysis of each of the soil samples from the treatment site for metals and nitro aromatics (explosives) is planned.
9. Adequate fire and personal protection to assure confinement and control of any fire resulting from the operation, and to prevent injuries of personnel present, will be provided.
10. Prior to the thermal treatment, the treatment site in Findings of Fact #5 will be secured and access restricted except to authorized personnel. Additionally, prior to the treatment operation, a visual inspection will be performed within a minimum 200-foot radius of the treatment site described in Findings of Fact #5 to assure that no unauthorized personnel are on site. Based on the engineering controls calculations provided in the project Work Plan, Munitions Response

for Discarded Military Munitions at Building 365 and Hanger 860 Munitions Response Areas, Revision No. 00 dated March 2010, Revision No. 01 dated March 2011, and Revision No. 02 dated October 2011; and the project Explosives Safety Submission, Amendment No. 02, Correction No. 02, dated February 2012, an enclosure which has 24 inches of sand bags on the roof and walls would have a maximum sandbag throw of 125 feet and would require a safety arc of 200 feet. The project Explosives Safety Submission, Amendment No. 02, Correction No. 02, dated February 2012 provides the detailed engineering controls and calculations.
11. A detailed written summary of the actual procedures used for treatment, details on the reasons for any deviations from the plans and information submitted for this request, the disposition of any residues from

Ser BPMOSE afs/0037
09 Mar 12

the treatment process, as well as any additional pertinent information will be submitted within 60 days of field work completion to both:

Florida Department of Environmental Protection, Northeast District
ATTN: Waste Program Administrator
7825 Baymeadows Way, Suite B200
Jacksonville, Florida 32256

and

Florida Department of Environmental Protection
ATTN: Mr. Anthony R. Tripp, Ph.D., P.E.
2600 Blairstone Road, Twin Towers
Mail Stop 4560
Tallahassee, Florida 32399

12. Thermal treatment of the waste as specified above in Findings of Fact #1 will occur in an open field as described in Findings of Fact #5 within the next 60 days.
13. FDEP Northeast District will be notified at least 2 days before the beginning of the disposal operation.

If you have any questions or comments please do not hesitate to contact Art Sanford at art.sanford@navy.mil or Stacin Martin at stacin.martin@navy.mil.

Sincerely,



MARK E. DAVIDSON
BRAC Environmental Coordinator

Copy to:
CH2M Hill (Michael Halil)
EPA Region 4 (Debbie Vaughn-Wright)
FDEP (David Grabka)
JAA (Rusty Chandler)